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ABSTRACT

This issue collects three articles concerning reading-teacher training. "Language, Failure, and Panda Bears" by Patricia M. Cunningham calls attention to dialect difficulties in the classroom and provides ideas for teacher training programs and for public schools to solve this problem. William H. Rupley, in "Improving Teacher Effectiveness in Reading Instruction through the Use of Behavior Modification," proposes that teacher effectiveness may be improved through the use of behavioral techniques. Martin Kling's "Selected Resources for Developing Concepts and Skills in Accountability for Teachers of Reading" suggests a broad range of professional materials to train "accountable" reading specialists. (KS)

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LANGUAGE, FAILURE, AND PANDA BEARS

Patricia M. Cunningham

Educators have long accepted the notion that what is learned and what is taught are often not the same. Recently while attending a language seminar at Georgetown University I took a cross-town bus to the zoo to see the famed panda bears, Hsing-hsing and Ling-ling. Impatient but persevering in the midday heat, I waited in the barely moving line that led to the bears' abode. Anticipation and excitement mounted as I rounded the corner and peeked into the enclosure. Frantically my eyes searched the corners and dark crevices. No panda bears! Presumably, the pandas had sought shelter from the heat and gaping visitors in the non-visible part of their enclosure.

Two hours later I was back in what had become an even longer line. This time, however, I was suspicious and anxious in addition to being hot and impatient. This time my twice-due reward awaited me. Both Hsing-hsing and Ling-ling were seated in huge tubs chomping away on bamboo branches.

From this experience I learned a little about panda bears and a lot about human reaction to unexpected failure. Now, of course I had suffered the pains of failure before, but this failure was unique because its possibility had never occurred to me. Waiting in lines is one of my least favorite pastimes but my experience has taught me that there is always something at the end of the line. The line system has always worked. One instance of failure of this system caused me serious doubts about its future success.

Now I'd like you to meet James. James has just turned five and is on the way to his first day of school. He is terribly excited and asks one question after another of his

third-grade sister who is "carrying" him to school. Along the way they stop at the local store to buy a Moon Pie for snack time. The storeman teases James about his fine new school clothes and lunch pail. James responds good naturedly as he counts out ten pennies to pay the man.

Confident and excited, James enters his kindergarten class. There he meets Miss Appleby. Miss Appleby has shiny long blond hair and wears a bright green dress. She smiles at James and ask his name, where he lives, and other questions adults are always asking children. When he answers, she looks puzzled and asks, "What did you say? Tell me again." Finally still looking confused, she directs James to a corner where some children are building with blocks. James sits down quietly trying to figure out what has happened. He could understand Miss Appleby. He has heard similar talk on television. Why did she not understand him? He concludes there must be something wrong with his language. A system that has worked from the very beginning of his awareness has failed him.

Now assuming Miss Appleby wants to communicate with James and is observant in her interaction with him, she will soon learn to understand his language system and no permanent damage will ensue, or will it? It is quite probable that the next time James is put into a strange situation in which people look and talk differently from him, he will feel some caution, some insecurity about the communicability of his language.

The situation described with James and Miss Appleby can and should be avoided. A teacher should be competent from the very first day to understand the language of the children she is going to teach. Today many universities are offering courses in Language and the grammatical systems of various dialects. It is rather curious, however, that naive six-year olds can understand a dialect they do not speak and certified college graduates, many of whom have had courses in Linguistics and are sophisticated in the paralanguage of phonology and syntax, fail to understand a dialect different from their own.

Perhaps there is a parallel between the third-grader who verbalizes the phonics rules and gives the sounds of the letters but has no idea what an unfamiliar word is and the June graduate who knows the rule system of Black English but can't understand a native speaker. A knowledge of rules and terminology may be necessary, but it is certainly not sufficient. Competence in a dialect is demonstrated by the ability to understand speakers of that dialect.

The responsibility for developing this competence should be shared by the teacher-training institution and the local school system. The teacher-training institution should offer a course in which students view videotapes of children speaking many different dialects. Under the guidance of language exper[illegible] students could become sensitive to the varied use of Engli[illegible] and induce rules and principles from observations.

The local school system also has a responsibility. They must provide opportunities for teachers to become oriented to the particular dialects spoken in their schools. During the preschool orientation period new teachers could view videotapes and analyze the language patterns specific to that school. Experienced teachers could serve as resources to the new teachers.

Finally, Miss Appleby has a responsibility. She must in some way demonstrate her ability to understand the language of the children she will teach. She could demonstrate this competence by viewing a videotape portion and paraphrasing from the dialect of the children into her dialect. Teachers, unlike panda bears, must be there at the end of the line.

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IMPROVING TEACHER EFFECTIVENESS IN READING INSTRUCTION THROUGH THE USE OF BEHAVIOR MODIFICATION

William H. Rupley

What are the effects of applying behavior modification techniques to the remediation of reading problems of primary grade students? Will the use of behavior modification increase the student's efficiency in developing a particular reading skill?

Behavior modification for instructional purposes is a systematically applied method aimed at altering specific performance behaviors. The steps of the method generally include (1) specifying goals, (2) determining criterion levels, (3) identifying behavioral procedures, (4) selecting reinforcers, and (5) providing a favorable instructional environment (Sulzer and Mayer, 1972).

Goals are the performance skills which the student should exhibit as a terminal behavior. When using behavior modification for instructional purposes, the goals are the pupil product the teacher looks for after a period of instruction. For example, the goal of a series of lessons on sight words might be students' demonstration of immediate recognition of selected words.

Criterion levels relate directly to the identified goals and allow the teacher to specify an appropriate level of performance. By establishing criterion levels for each of several reading skills, teachers have a bases for identifying students who have mastered a particular skill or are making satisfactory progress. Criterion levels enable the teacher

to make judgements about not only the skill development of individual students, but also about the effectiveness of the instructional program. Criterion levels selected may vary. For example, criterion levels for students learning sight words could be that 80 percent of the words taught must be correctly identified or that students must increase by a specified number the words that they can identify on sight. Both of these sample criteria focus on terminal behavior directly related to instructional goals. If the appropriate terminal behavior does not meet the identified criterion level, then the teacher might suspect that the instruction was ineffective or inappropriate for the students.

Following the identification of goals and success criteria, the next step is selecting a behavioral procedure. Because behavior change can take many directions ranging from strengthening weak behaviors to eliminating inappropriate behaviors, the procedure selected should be guided by the desired results. Consider the sight word example introduced above. A student who correctly identifies only a few of the sight words would require a behavioral procedure which attempts to extend this correct identification behavior to other sight words.

Reinforcers are stimuli that increase or maintain a specific behavior. They are classified as primary, conditioned, or generalized. Primary reinforcers are those which sustain or perpetuate life (basic needs). A primary reinforcer used with the identification of sight words might be allowing a child to eat lunch only after he correctly identified the sight words. (These kinds of reinforcers are not normally available to classroom teachers.) Conditioned reinforcers are stimuli which when paired with a specific behavior tend to increase or maintain that behavior. This type of reinforcer is the one most often cited in the literature as a means of increasing the frequency of correct responses (i.e., tokens, candy, money, etc.). However, praise, grades, free choice activities, charting, and so forth may also serve as conditioned reinforcer. The final classification of reinforcers is generalized. When conditioned and primary reinforcers serve to reinforce a wide range of behaviors, they are labeled as generalized reinforcers. The degree to which generalized reinforcers affect behavior is related to the experiences of the individual. That is, if an individual has not learned to associate certain stimuli, such as praise or grades, with specific behaviors, then these stimuli are not strong generalized reinforcers.

After selecting reinforcers which serve as rewards for appropriate behavior, an environment which assures that the

appropriate behaviors are most likely to occur should be identified. The most appropriate environment to produce a desired instructional behavior change is one that allows for the teacher to have control over the reinforcers and the behavior to generalize to the appropriate classroom situations.

Implementation of behavior modification should not be attempted until the student has had time to adapt to a new instructional situation. Thus, data collection on a specific behavior should be delayed until a student has spent some time in a new learning environment. After a student has had time to settle into a new situation, and the teacher continues to sense a problem, data are gathered on the specific behavior of interest. Measures are taken on the incidence rate of this behavior. This procedure is called establishing a baseline. Collecting baseline data prior to implementing behavior modification is important for identifying the student's current level of performance, validating the stability of this performance, and comparing changes in behavior as a result of specific instruction.

DESIGN OF THE STUDY

This study investigated the efficacy of a behavior modification method for remediation of reading skills with ten primary grade students enrolled in a sixteen week remedial reading program. Ten elementary teachers, enrolled in an introductory graduate diagnostic and remedial reading course, received eight hours of instruction in the use of behavior modification methods for reading instruction. The instruction consisted of developing teachers' competencies in (1) collecting baseline data on a specific reading skill, (2) verifying the baseline data with the use of individual diagnostic tests, (3) establishing goals for reading related to the baseline data, (4) identifying and using conditioned reinforcers readily available in most classrooms that minimize the use of materialistic rewards, (5) extending correct reading skill behavior by reinforcing only appropriate responses, and (6) providing an instructional environment for the direct application of the reading skill concurrently with remediation.

The teachers were all employed in local school systems within a twenty mile radius of Fort Wayne, Indiana. Mean years of teaching experience at the elementary level was 4.7. No teacher had less than two years of teaching experience. Role playing situations and mastery exams were used to instruct

and assess the teachers' competence with the use of behavior modification, respectively. These data and observations supported the assumption that the teachers were competent to apply the behavior modification method for remedial reading instruction purposes.

Subjects were drawn from 28 primary level students attending a summer remedial reading clinic and were instructed by inservice teachers working toward a reading specialist degree. The clinic was supervised by two reading clinicians, and the students were taught on a one-to-one basis. All of the subjects had attended the clinic for four weeks and had received twenty hours of individual instruction prior to their assignment to a control or experimental group.

Twenty subjects were randomly selected and ten were randomly assigned to an experimental group and ten to a control group. These subjects were then randomly assigned to individual teachers within each group. Following the assignment of subject to teacher, both control and experimental teachers established baseline data for their subject. To minimize the effect of inaccurate baseline data, the investigator reviewed all of the diagnostic findings to verify that the reading skill behavior identified for remedial instruction was, in fact, a reading skill deficiency.

METHODS

Baseline data collected by the teachers revealed a broad range of reading skills in need of remediation. The skills identified included basic sight words, phonics, reading rate, comprehension, and letter identification. These skill needs varied for individual children, and although most of the subjects were weak in several skill areas it was decided to focus on remediation of the reading skill with which the subject was having the most difficulty. Because of the need to provide individual help in areas in which severe deficiencies were noted, no attempt was made to control the instructional variable. The decision not to control the instructional variable was based on both ethical and "real world" considerations. Because the research was not conducted in laboratory setting and the students were enrolled in the clinic to improve their reading skills, it would have been indefensible to disregard the subjects' needs simply because of a researcher's desire to control the instructional variable.

Following the establishment of baseline data the control teachers instructed their subjects through the use of games,

teacher-made materials, and commercially prepared materials. These teachers followed their regular program of instruction which consisted of remedial reading instruction related to the established baseline data. No specific provisions were made to reinforce appropriate learning, and behavior modification techniques were not employed by the control teachers. The experimental group was instructed with similar and identical materials in addition to the use of the behavior modification techniques. Figure 1 presents an example of establishing baseline data and monitoring pupil's progress.

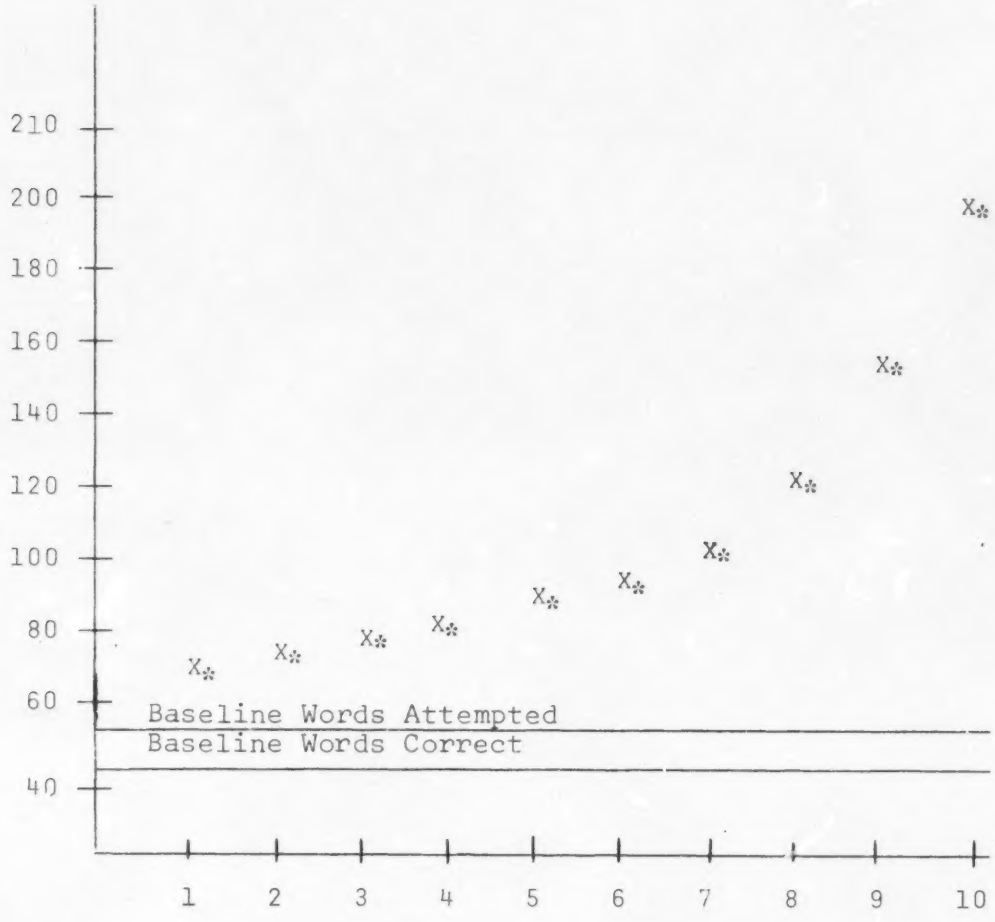
Teachers using the modification procedures were observed daily to ensure that the treatment was administered and that only appropriate reading behavior was reinforced. The reinforcers selected minimized materialistic gain, but still reinforced application of the reading skill. Only reinforcers which accentuated and extended positive reading growth were used. Among the reinforcers identified and used by the experimental teachers were verbal praise, written praise, student-made graphs, wall charts, use of reading hardware, and free choice reading.

Verbal and written praise was incorporated in all instructional practices as often as possible. If the student was responding orally the modification teacher was to ignore all inappropriate responses and verbally reinforce only the correct response. The same procedure was followed with written activities except the reinforcement was recorded on the student's work. In addition, a short summary of what the child had learned and accomplished was used at the end of each instructional session. This summary was intended to help the children better understand what they had learned, to help them understand how this learning would improve their reading skills, and to nurture an attitude of self achievement and success in reading. Although it was difficult to statistically verify the effect of the summary activity, several parents indicated that their child was able to better discuss with them what he or she had learned, as well as exhibiting an improved attitude about coming to the reading clinic.

A typical reinforcer used by several of the behavior modification teachers relied upon the students monitoring their own progress. Two examples of this system were the use of charts and wall pockets. Student's charting of their own progress was emphasized for reading skills which dealt with the Dolch Words, comprehension, and reading rate. For example, the total number of Dolch Words correctly identi-

Figure 1

Example of established baseline data and
pupil's progress with behavior modification techniques



fied during each instructional period were marked daily on the student's graph. During discussion periods about interpretation of the graph the teacher emphasized that the student was competing with himself and that an upward trend indicated improvement. A similar procedure was used with small pocket charts in which words correctly identified were placed in the appropriate pocket and the number of the words in the "Words Correct" pocket were recorded on a daily basis.

Hardware such as the Language Master and the audio recorder were also used to reward appropriate behavior and better utilize application of the reading skill learned. Sight words which the child had learned were used in context on the Language Master to serve both as a reinforcer for appropriate learning and provide for application of the skill. Also, the audio recorder served to reinforce learning, present examples of words in context, record responses to comprehension questions, record daily progress of the students, and record short language experience stories.

Charts and other reward systems were for individual students. A student was in competition only with himself. Charts used for recording student progress were never displayed in the classroom or compared with those of ther students in the program.

RESULTS AND INTERPRETATION

Following ten hours of instruction the subjects took a post-test and returned to the regular program. Tables 1 and 2 present the findings for the experimental and the control group between pretesting (baseline) and posttesting. Significant differences ($p < .001$) were noted for the experimental subjects and all of these subjects exhibited positive growth in the identified reading skill area. The control group did not reflect a significant difference ($p < .09$) in remediation at the .05 level of significance.

These analysis suggest that remediation of specific reading skill deficiencies with primary level students is improved through the use of a behavior modification technique. The behavior modification technique used does not have to rely on conditioned reinforcers which are materialistic in nature, i.e., candy, tokens, etc. These data confirmed the utility of using conditioned reinforcers of a non-materialistic nature that are readily available in most classrooms and which emphasize application of the reading skill learned. The use

Table 1

Test of Significance with Pre- and Posttest Data
for the Experimental Group (N=10)*

Subject	Reading Skill Instruction	Pretest Mean	Posttest Mean	Sign
1	Consonant Blends - Incorrect	17.6	4.75	+
2	Comprehension - Literal Questions Correct	76%	92%	+
3	Vowel Diagraphs - Words Correct	33.62	48.43	+
4	Sight Words (Dolch Lists)	56.00	165.00	+
5	Sight Words (Dolch Lists)	50.00	90.00	+
6	Sight Words (Dolch Lists)	183.00	206.00	+
7	Sight Words (Dolch Lists)	27.00	56.00	+
8	Phonics Analysis - Words Correct	10.00	26.00	+
9	Words Per Minute (Reading Rate)	72.60	119.25	+
10	Sights Words - Correct	21.00	46.00	+

N = 10
X = 0
*p < .001

Table 2

Test of Significance with Pre- and Posttest Data
for the Control Groups (N=10)*

Subject	Reading Skill Instruction	Pretest Means	Posttest Means	Sign
1	Letter Identification	14.00	26.00	+
2	Sight Words (Dolch List)	31.00	31.00	o
3	Sight Words (Dolch List)	65.00	92.00	+
4	Sight Words (Dolch List)	46.00	68.33	+
5	Sight Words (Dolch List)	120.00	116.60	-
6	Whole Word Identification	14.00	18.00	+
7	Beginning Consonant Sounds	12.00	31.00	+
8	Consonant Blends - Correct	16.00	14.00	-
9	Comprehension - Literal Questions Correct	40%	80%	+
10	Phonic Analysis - grapheme/ phoneme correspondence	8.00	14.00	+

N = 9
X = 2
*p < .09

of charting, stop watches, verbal and written praise, and reading hardware proved sufficient to reinforce and extend the desired reading behaviors. Finally, behavior modification appears appropriate for use with a wide variety of reading skill areas as evidenced by the range of skills which were identified as requiring remediation and, in fact, remediated in this study.

Further research is needed to identify a wider variety of reinforcers which are (1) available to most teachers in a regular classroom; (2) effective for promoting either long term or short term reading skill development; and (3) conducive to motivating reading skill improvement, reading interests, and a desire to read.

Reference

Sulyer, Beth and G. Ray Mayer. Behavior Modification Procedures for School Personnel. New York, New York: Holt, Rinehart and Winston, 1972.

VISABLE LANGUAGE, the Journal for Research on the Visual Media of Language Expression, has provided an indepth overview of spelling research and methodology in the Autumn, 1976 issue. Serving as guest editor, Richard Venezky has pulled together articles ranging in topic from the history of spelling and exerpts from Noah Webster's AMERICAN SPELLING BOOK to a look at purposeful misspelling in advertising. A present tense message is found in the reprinted 1926 article, Methods and Theories of Learning to Spell Tested by Studies of Deaf Children, by Aurthur Gates and Esther Chase. This special issue, Volume X, Number 4, along with other back issues is available for three dollars ($3.00) per copy. Annual subscription rates are thirteen dollars ($13.00). All orders should be directed to VISIBLE LANGUAGE, c/o Cleveland Museum of Art, Cleveland, Ohio 44106.

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SELECTED RESOURCES FOR DEVELOPING CONCEPTS AND SKILLS IN ACCOUNTABILITY FOR TEACHERS OF READING

Martin Kling

A succinct synonym for the term accountability is responsibility. Other key words usually found in dictionaries are "reporting," "exploration," and "justification." According to Strain (1976), "educational accountability focuses directly on specific identifiable achievements by the learner." Lessinger (1970) points to three basic areas which accountability stresses; (1) student accomplishment, (2) independent review of student accomplishment, and (3) a public report relating dollars spent to student accomplishment. The basic assumption of this paper is that the clients of teachers, learners and their parents, will best be served by teachers who are knowledgeable and experienced in their profession. The aim therefore is to indicate some key resources which bear upon accountability in reading relating to theory and research as well as specific skills necessary to implement accountability in a responsible professional manner.

Professionalism in education should be equated with accountability; a thorough knowledge of what the field knows is essential for the establishment of boundaries of what can or can not be done for the learner.

THEORY AND RESEARCH IN READING

Spache and Spache (1973) point out that "without a clear-cut concept of the nature of the reading act and the reading process it is almost impossible to plan the goals of instruction." (p. 4)

Pre-service and/or in-service teachers may be directed to the following references for a broad sampling of historical,

theoretical, and research studies in the field of reading from 1908 to 1976.

Clymer (1968) described taxonomic attempts to construct models of the reading process: (1) Strang's classification: products, prerequisites, the reading process, and procedures; (2) Spache's extension of Guilford's structure-of-the-intellect model; (3) McCulough's schema of thought patterns; (4) Barrett's taxonomy of the cognitive and affective dimensions of reading comprehension; (5) Gray-Robinson's model, emphasizing rates, word perception, comprehension, reaction to author's ideas, and assimilation of what is read. Two other models are also critically evaluated in the Clymer review. They included Holmes' substrata factor theory and Smith and Carrigan's synaptic transmission model.

Davis (1971) presents twenty-one evaluative survey papers on language development, learning to read, and the reading process. The critical papers grew out of a working bibliography of approximately 8,600 references.

Huey (1908, 1968) provides a benchmark for psychology and pedagogy of reading. It is of some interest to compare and contrast what was known in 1908 and what is known and not known in 1977. Huey's work is a classic in the field.

Kavanagh and Mattingly (1973) present chapters on auditory processing of speech, component processes in reading, linguistic theory, writing systems, speech perception, and an information processing model.

Leisman (1976) critically assesses the most comprehensive view of the basic visual processes as it relates to reading and other learning problems. The book is divided into four parts dealing with the basic processes, specific disorders, diagnosis of visually based problems in learning, and treatment approaches to visually based problems in learning. The entire thrust of the volume is multi-disciplinary and concerned with issues in memory, attention, nutrition, visual physiology, neuropsychology, electroencephalography, and evoked potentials.

Levin and Gibson (1975) present an integrated review of basic and applied research in reading. They take an anti-theoretical position pointing out that there is no such thing as a model of the reading process. Instead they stress principles of reading which include the selection of word features, active strategies, and economy in processing by the "reduction of alternatives."

Levin and Williams (1970) provide a collection of basic studies in reading emphasizing three main strands: (1) linguistic, (2) psychological processes, and (3) social variables in reading research. Most of the studies were developed over a five year period as part of Project Literacy at Cornell University.

Singer and Ruddell's (1976) second edition of theoretical models and processes of reading is approximately 75% new. The three main divisions are (1) processes of reading, (2) models, and (3) teaching and research issues. Processes of reading includes sections on language, visual processing, perception, word recognition, cognition, affect, and cultural interaction. Within the models section are models of psycholinguistics, information processing, developmental models, and an affective model.

THEORY AND RESEARCH IN ACCOUNTABILITY

Parallel knowledge in the theory and research related to accountability is necessary in order to sensibly integrate the theory and research in reading.

Some key sources in the theoretical and research aspects of accountability follow.

Bloom (1956) and his colleagues document how a taxonomy in the cognitive domain can be used to further educational objective and curriculum development as well as to resolve problems of classifying educational objectives. Six major classifications are given. They include: (1) knowledge, (2) comprehension, (3) application, (4) analysis, (5) synthesis, and (6) evaluation.

Krathwohl (1956) parallels the Bloom work in providing a taxonomy for the affective domain. The five major classifications for the affective domain include: (1) Receiving, (2) Responding, (3) Valuing, (4) Organization, and (5) Characterization by a Value or Value Complex.

Harrow (1972) delineates a psychomotor taxonomy with six classifications; (1) reflex movement, (2) basic-fundamental movements, and (3) perceptual abilities, (4) physical abilities, (5) skilled movements, and (6) non-discursive communication. A very distinctive feature of this taxonomy presentation is the use of a consistent and straight forward approach utilizing McAshan's (1970) method for writing behavioral objectives.

Lapp (1972) presents more specific references dealing with research and theory underlying behavioral objectives as related

to education and reading. Lapp reviews and synthesizes some 148 references. A consistent finding found in the literature and summarized by Lapp is "that students' knowledge of behavioral objectives and their knowledge of the expected outcome prior to the study of an instructional unit results in increased efficiency of student learning." (p. 24)

Farr (1970) presents a collection of articles in five sections which covers (1) what can be evaluated in reading education, (2) practices in evaluating programs and students, (3) improving classroom evaluation of student reading, (4) procedures and problems in measuring specific reading skills, and (5) estimating change in reading ability.

Blanton, Farr, Tuinman (1974) provide critical analyses of such reading assessment issues as; (1) testing for reading evaluation, (2) reading tests and the disadvantaged, (3) what is criterion-referenced measurement, (4) a critique of criterion referenced tests, (5) reading test and performance contracting, and (6) comments on such persistent problems as content validity in reading tests.

APPLICATIONS OF ACCOUNTABILITY IN READING

Three general but useful sources that deal with the "how to" aspects of writing objectives are given below.

Mager (1962) is a modern classic that explicitly presents objectives (what the book is about), why we care about objectives, the qualities of meaningful objectives, identifying the terminal behavior, stating the criteria, and self tests. This paperback essentially provides a framework for most of the subsequent ways in which books have been written utilizing a behavioral objective approach.

McAshan (1970) offers a basic framework for analyzing behavioral objectives which includes the goal, evaluation, behavioral activity, and success level.

Tanner (1972) underscores the interrelationships and continuum dimensions of the cognitive and affective domains. A unique feature is the inclusion of problems and criticisms of a particular taxonomy after the formal presentation of that taxonomy along with many practical and useful examples of the particular classification system.

INTEGRATION OF ACCOUNTABILITY AND READING

Specific sources in reading dealing with accountability can be conveniently grouped under the following headings which include the pertinent sources related to that particular emphasis in accountability. The sections are arranged in a pyramidal order from broad objectives to more detailed and specific objectives.

1. Teacher Training: Sartain and Stanton (1974) present the results of a two year effort of the Commission on High Quality Teacher Education, an effort underwritten by the International Reading Association. Seventeen areas of professional development and reading at the graduate and undergraduate and in-service level are identified; (1) understanding the English language as a communication system, (2) interaction with parents and the community, (3) instructional planning (curriculum and approaches), (4) developing language fluency and perceptual abilities in early childhood, (5) continued language development in social settings, (6) teaching word-attack skills, (7) developing comprehension (analysis of meaning), (8) developing comprehension (synthesis and generalization), (9) developing comprehension (information acquisition), (10) developing literary appreciation (young children), (11) developing literary appreciation (latency years), (12) developing literary appreciation (young adults), (13) diagnostic evaluation of reading progress, (14) school and classroom organization for diagnostic teaching, (15) adapting instruction to varied linguistic backgrounds, (16) treatment of special reading difficulties, and (17) initiating improvements in school programs. The seventeen components are then described in resource modules along with quality considerations for teacher education.

2. Instructional guides: Gilliland (1974) utilizes a problem oriented approach by presenting instructional guides written for each chapter oa a text. A guide typically consists of a list of problems a teacher may encounter in a real life setting, the possible causes for these problems, and suggestions for instruction.

3. Diagnostic-prescriptive approach: Harris and Smith (1976) base their text for teaching reading in the elementary school on a model of the operations that they believe take place in the learner in order to read. These operations involve nine components; (1) printed page, (2) decoding, (3) image perception, (4) generalization, (5) recall, (6) analysis, (7) judgement, (8) extension, and (9) external response.

4. Competency based instruction: Forgan and Mangrum (1976) present a modular preservice and inservice program for teaching content area reading skills. Ten modules include (1) determining readability levels of content area levels, (2) preparing materials at specified reading levels, (3) determining suitability of content area materials, (4) diagnosing reading skill area and content areas, (5) teaching word meanings, (6) helping students comprehend, (7) helping students use study strategies, (8) helping students pronounce multi-syllable words, (9) motivating reluctant readers, and (10) identifying and helping problem readers. Each module presents a prospectus which includes rationale, objectives, resources and time required, pretest, enumeration of program alternatives related to pretest responses, enabling elements, posttest, answers to the posttest, and a selected bibliography.

Olson and Dillner (1976) derive the content of their textbook by keying into eight books that are currently used as texts for teaching prospective teachers to teach reading in the elementary school. The text consists of four main parts; (1) the reading process, (2) methods of teaching reading, (3) rounding out the reading program, and (4) practicing the teaching of reading. Each chapter within the sections has six main components; (1) prerequisites, (2) rationale, (3) list of specific behavioral objectives, (4) a self preassessment, (5) list of enabling activities, and (6) an information section which presents expository material. Extensive field experiences, which are to be checked by the instructor, are available in a separate workbook-type booklet with tear-out pages.

Wallen (1972) organizes his book on competency in teaching reading in the elementary school into three main sections; (1) recognition skills, (2) comprehension skills, and (3) in the classroom. The author states:

> The text is designed to teach you principles for designing and conducting testing and teaching strategies. You will learn by reading explanations of the principles, seeking examples of possible application of them, and have guided practice in applying the principles in designing and conducting tests and lessons (p. 16).

Strain (1976) presents a text on accountability and reading instruction for teaching reading at the elementary school. The text consists of eight chapters; (1) accountability in reading instruction, (2) assessing learners needs in reading, (3) objectives for reading instruction, (4) individualizing reading

instruction, (5) developing interests and attitudes in reading, (6) evaluation of achievement in reading, (7) developing skills in word recognition, and (8) skills and abilities in reading comprehension. Appendices include a glossary and instructional units in reading.

5. Management Systems: Burns (1974) compiled a list of ten management systems; (1) Criterion Reading (Random House, Inc.), (2) Diagnosis: An Instructional Aid (Science Research Associates, Inc.), (3) Fountain Valley Teacher Support System in Reading (Richard L. Zweig Associates, Inc.), (4) Individualized Criterion Referenced Testing (Educational Development Corporation), (5) IOX Objective - Based Tests in Reading (Instructional Objectives Exchange), (6) McGuire - Bumpus Diagnostic Comprehension Test and Cooper - McGuire Diagnostic Word Analysis Test (Croft Educational Services), (7) Prescriptive Reading Inventory (California Test Bureau, McGraw Hill Company), (8) Ransom Program (Addison-Wesley Publishing Company), (9) The Read System (American Book Company), (10) Wisconsin Design for Reading Skill Development (NCS Interpretive Scoring System).

Each of the systems is described as to publisher, consultants, skill sequences, manner in which skills are measured, useability of test, length of test, placement test, scoring, grade span, and price.

6. Programmed Instruction: Burron and Claybaugh (1972) provide a programmed approach to the teaching of basic concepts in reading instruction at the elementary school level for students taking a beginning reading course. The text is organized around eight lessons; (1) significant elements in the reading process, (2) readiness for reading, (3) assessing reading ability, (4) informal techniques of assessment (informal reading inventory), (5) informal techniques of assessment (cloze test procedure), (6) grouping for instruction, (7) planning for instruction, and (8) approaches to beginning reading. The authors believe that this programmed text can serve as a supplement to a professional text and also facilitate a beginning student's "identification, organization, and retention of selected basic concepts in the teaching of reading by eliciting his active participation in completing the program lessons."

Wilson and Gambrell (1976) use a programmed format to update teachers on the topic of comprehension. The seven chapters in the text deal with reading comprehension, materials for reading comprehension instruction, and suggested answers to pretest questions plus an annotated bibliography of suggested readings.

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CENTER FOR THE STUDY OF READING

Supported mostly by a large grant from the National Institute of Education, the University of Illinois has established the Center for the Study of Reading. The center is the organizational successor to the Laboratory for Cognitive Studies in Education. The center has been active in collecting and preparing material for distribution. Forty-four items in the Technical Report Series are now available upon request or through ERIC. In addition center staff members have contributed to two forthcoming books, Theoretical Issues in Reading Comprehension and Schooling and The Acquisition of Knowledge, both published by Lawrence Erlbaum and Associates. Information concerning center activities and ordering of technical reports is available as follows:

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